

<p>2000-118766/11 A96 D21 E13 (A26) OREA 1998.06.26 L'OREAL SA *FR 2780279-A1 1998.06.26 1998-008162(+1998FR-008162) (1999.12.31) A61K 7/40, 7/06 Cosmetic sunscreen composition containing benzimidazole derivative C2000-036624 Addnl. Data: CANDAU D</p>	<p>A(6-AE4, 12-V4A, 12-V4C) D(8-B9A) E(6-D5, 6-E1, 6-F1)</p> <div data-bbox="860 273 1461 483"> </div> <p align="right">(I)</p> <p>X = S, NH, NR1 or O; R1 = 1-20C alkyl, 2-20C alkenyl, 3-15C cycloalkyl, 6-12C aryl, (6-12C)aryl(1-6C)alkyl, 2-21C alkoxycarbonyl or 5-12C heteroaryl, all optionally substituted by 1-6C alkyl, 1-16C alkoxy, 6-12C aryloxy, NH₂, OH, CONR₂R₃, COOR₄ or Si(OR₇)₃ or interrupted by ether bonds; R₂, R₃ = H or 1-6C alkyl; R₄ = H, 1-16C alkyl, 6-12C aryl or CH(R₆)CH₂(OCH(R₆)CH₂)_nOR₅; R₅ = 1-4C alkyl; R₆ = H or Me; R₇ = 1-4C alkyl;</p>
<p>NOVELTY Cosmetic composition contains a benzimidazole derivative (I) and an organomodified silicone (II) that does not absorb ultraviolet radiation.</p> <p>DETAILED DESCRIPTION The benzimidazole derivative is of formula (I):</p>	<p align="right">FR 2780279-A+</p>

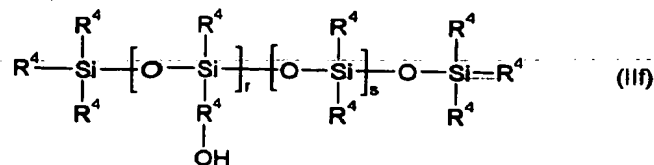
<p>n = 0-4; R₈-R₁₅ = H, NH₂, NO₂ or R₁.</p> <p>USE For protecting the skin and/or hair from the effects of ultraviolet radiation, especially solar radiation.</p> <p>SPECIFIC COMPOUNDS 17 Compounds (I) are cited in claims, e.g. 2-(1-n-pentyl-2-benzimidazolyl)-benzoxazole of formula (Ia):</p> <div data-bbox="81 1092 730 1260"> </div> <p align="right">(Ia)</p> <p>TECHNOLOGY FOCUS Polymers - Preferred Silicone: (II) is preferably selected from the</p>	<p>following: (1) alkoxyated silicones of formula (IIa)-(IIc):</p> <div data-bbox="844 903 1494 1008"> </div> <p align="right">(IIa)</p> <div data-bbox="844 1029 1494 1134"> </div> <p align="right">(IIb)</p> <div data-bbox="844 1155 1494 1260"> </div> <p align="right">(IIc)</p> <p align="right">FR 2780279-A+/1</p>
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<p>2000-118766/11</p> <div data-bbox="64 1491 779 1596"> </div> <p align="right">(IIId)</p> <p>R₁' = 1-30C alkyl or phenyl; R₂' = C₆H₂O(C₂H₄O)_a(C₃H₆O)_bR₅' or C₆H₂O(C₄H₈O)_aR₅; R₃', R₄' = 1-12C alkyl, preferably Me; R₅' = H, 1-12C alkyl, 1-6C alkoxy, 2-12C acyl, OH, SO₃M, OCOR₆', optionally N-substituted 1-6C aminoalkoxy, optionally N-substituted 2-6C aminoacyl, NHCH₂CH₂COOM, (CH₂CH₂COOM)₂ (sic), optionally substituted aminoalkyl, 1-30C carboxyacyl, phosphono (optionally substituted by 1-2 substituted aminoalkyl groups), CO(CH₂)_dCOOM, OCOCHR₇'(CH₂)_dCOOM, NHCO(CH₂)_dOH or NH₃Y; M = H, Na, K, Li, NH₄ or organic ammonium; R₆' = 1-30C alkyl; R₇' = H or SO₃M; d = 1-10; m, o = 0-20;</p>	<p>n' = 0-500; p = 1-50; a, b = 0-50; a+b = 1 or more; c = 0-4; x = 1-100; Y = an anion;</p> <p>(2) carboxyalkyl silicones of formula (IIe):</p> <div data-bbox="812 1701 1559 1848"> </div> <p align="right">(IIe)</p> <p>V = (R₁O)_aR₂(OR₃)_cCOOM; R₁, R₃ = 2-20C alkylene; R₂ = 1-50C alkylene optionally substituted by OH; e = 0 or 1; f = 0-200; M = H, alkali(ne earth) metal, NH₄ or quaternary</p> <p align="right">FR 2780279-A+/2</p>
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ammonium;

g, h = 0-1000;

(3) hydroxyalkyl silicones of formula (IIf):



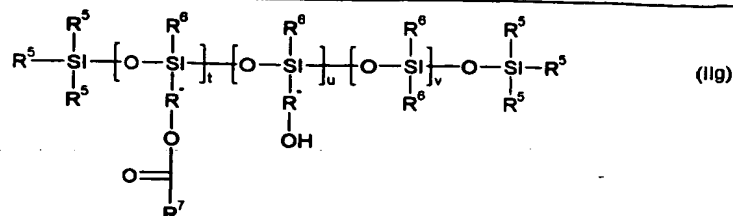
R⁴ = Me or Ph, at least 60% being Me;

R^{4'} = 2-18C alkylene;

r = 1-30;

s = 1-150;

(4) acyloxyalkyl silicones of formula (IIg):



R⁵ = Me, Ph, OCOR⁵ (sic) or OH, provided that only one R⁵ group per Si atom can be OH;

R⁶ = Me or Ph;

R⁷ = 8-20C alkyl or alkenyl;

R = 2-18C alkylene;

t = 1-120;

u = 1-30;

v = 0 or less than 0.5 times t;

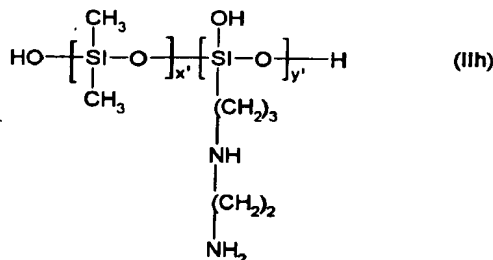
t+u = 1-30;

at least 60% of R⁵ and R⁶ are Me; groups of formula -Si(Me)(OH)-O- can be present in amounts not exceeding 15% of t+u+v;

(5) aminoalkyl silicones of formula (IIh):

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x', y' = numbers such that the molecular weight is 5000-500,000;

(6) cationic silicones of formula (IIi):



G = H, Ph, OH or 1-8C alkyl;

i = 0-3;

j = 0 or 1;

k, l = numbers (not coherently defined);

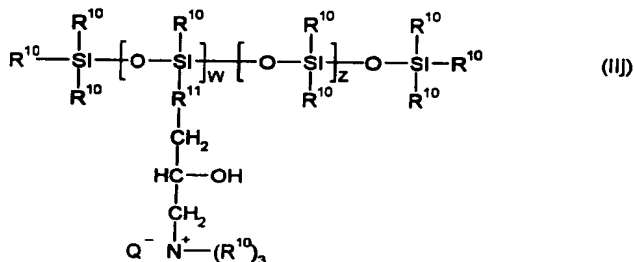
R⁸ = C_qH_{2q}L;

q = 2-8;

L = N(R⁹)CH₂CH₂N(R⁹)₂, N(R⁹)₂, N⁺(R⁹)₃A⁻ or N(R⁹)CH₂CH₂N⁺R⁹H₂A⁻;

R⁹ = H, phenyl, benzyl or saturated hydrocarbyl; A = halide;

(7) cationic silicones of formula (IIj):



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R¹⁰ = 1-18C hydrocarbyl;

R¹¹ = a divalent hydrocarbon group;

Q = halide;

w = 2-20;

z = 20-200.

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